Abdominal Pseudo Hernia: A Rare Complication of Herpes Zoster

Dear Editor,

Herpes zoster (HZ) occurs after the reactivation of endogenous varicella-zoster virus in individuals who have been previously infected with the virus as chicken pox.[1] The virus persists in the latent form in the dorsal root ganglion of the nerves.[2] Once the virus is reactivated, it causes a localized dermatomal disease, which is clinically characterized by unilateral radicular pain and vesicular eruptions clustered in a single dermatome.[1] The virus usually affects the sensory nerves but rarely it might affect the motor nerves as well.[3] Because of motor ventral root involvement, there may be paralysis of muscles including ipsilateral abdominal muscles leading to pseudo herniation.[4] Here we present a unique case of postherpetic abdominal pseudo hernia because of its rare incidence and its misdiagnosis by physicians as abdominal herniation.

A 60-year-old man presented to our outpatient department (OPD) with complaints of swelling over his right flank for 5 days. It was associated with mild pain and abnormal tingling sensation over the affected site. The swelling reduces in size in lying down position and increases on coughing. Patient gave a history of HZ over the same site (T10-T11 dermatome) 1 month back. No associated history of fever, abdominal pain, vomiting, diarrhea, breathlessness, chest pain, headache, or altered sensorium. He had no past history of diabetes mellitus (DM), hypertension (HTN), or any other chronic illness. On examination, a single, firm, nontender, nonmobile swelling of size 5 cm × 3 cm was palpated over the right iliac region [Figure 1a]. Few healed hyperpigmented oval patches with central scarring were present over the anterior aspect of the right iliac region [Figure 1b]. The abdominal girth was measured to be 43inches [Figure 2]; the right side measured 22 inches [Figure 3a] and the left side 21 inches [Figure 3b]. Other systemic examinations were within normal limits. All blood parameters were normal. Ultrasonography of the abdomen and pelvis revealed no mass or collection in that region.

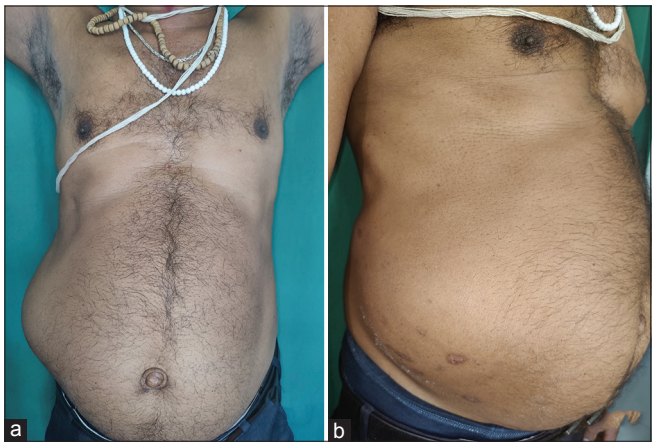

Figure 1: (a) Single, firm, nontender, nonmobile swelling over the right iliac region (b) Healed hyperpigmented patches with central scarring over the anterior aspects of the right iliac region

Based on the clinical examination findings and past history of HZ along with the absence of structural defects in abdominal ultrasound, a diagnosis of postherpetic pseudo hernia was made. Patient was counseled about the self-resolving nature of the disease. He was trained regarding abdominal muscle strengthening exercises and was prescribed oral gabapentin to relieve postherpetic neuralgia.

HZ occurs due to reactivation of varicella zoster virus, which is characterized by unilateral vesicular skin eruptions and radicular pain mostly confined to a particular dermatome innervated by a single spinal or cranial sensory ganglion.[2] During the clinical stages of varicella, virus usually passes from cutaneous lesions to the sensory nerve and then to sensory ganglion where it remains dormant.[2] As the cell-mediated immunity against the virus goes below the

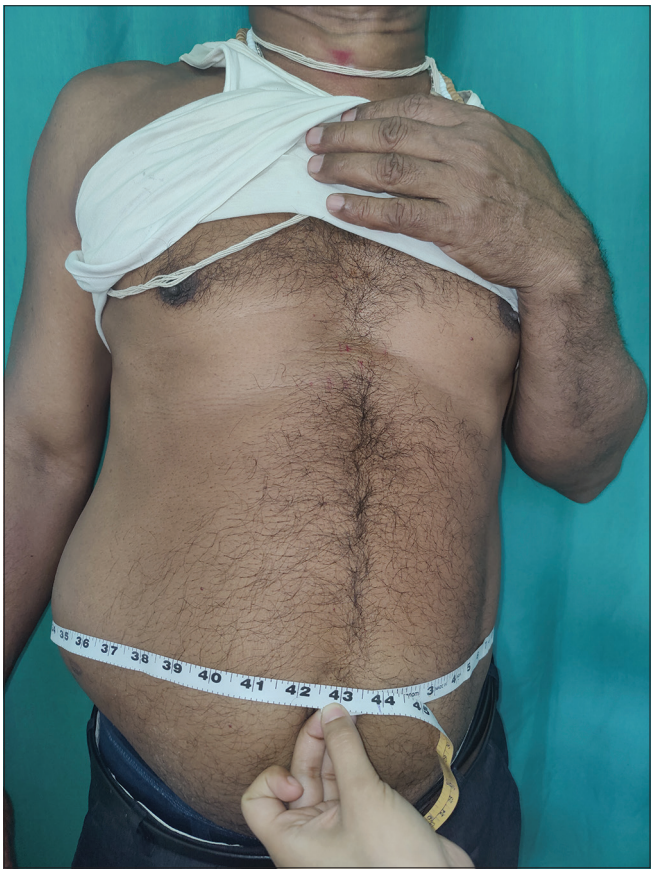

Figure 2: The abdominal girth was measured to be 43 inches

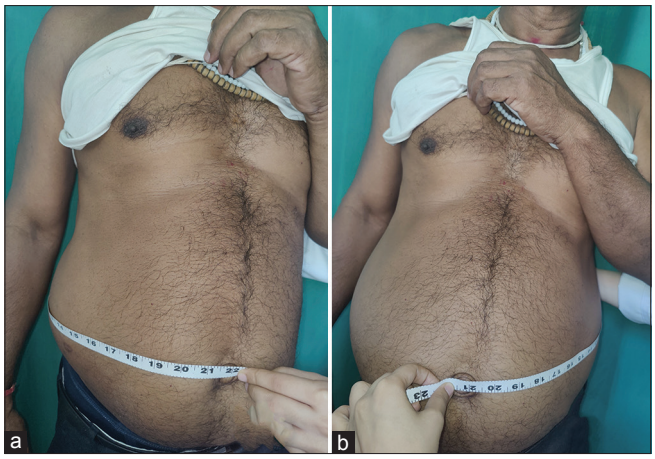

Figure 3: (a) Right side of the abdomen measured 22 inches and (b) Left side 21inches

critical values, virus starts multiplying and starts spreading within the dorsal root ganglion, which causes neuronal inflammation and necrosis causing excruciating pain and postherpetic neuralgia as its main complication.[1] About 5% cases may have motor paralysis because of spread of the virus to the ventral root of the nerves. Because of motor ventral root involvement, there may be paralysis of muscles leading to pseudo herniation.[4] Postherpetic pseudo hernia accounts for about 0.17% cases.[3] It is one of the neurological complications of HZ, which is defined as partial protrusion of the abdominal wall due to abdominal muscle paralysis.[4] The first case of abdominal muscle paralysis due to HZ was reported in 1896 by Taylor.[5] Chernev's study states that the mean age group affected was 67.5 years and men were affected more than women in a ratio of 4:1.[6] The most commonly affected dermatome is T11 as in our case. Usually pseudo hernia is asymptomatic but sometimes it leads to complications such as constipation, colonic pseudo-obstruction, and paralytic ileus.[3] Diagnosis of pseudo hernia is made on the basis of clinical examination, present or past history of HZ in the presence of anabdominal bulge in middle-aged or elderly individuals, particularly in the area of T10-T12 dermatomal distribution.[4] Imaging like ultrasound and Computed tomography (CT) scan can be done to rule out abdominal hernias due to any structural defects or various other factors.[1] It usually has a good prognosis, and shows spontaneous remission within a few months.[1]

There are very few case reports published in dermatology literature because many physicians are not aware about this sequela of HZ, and often tend to miss the diagnosis. We are reporting this case so that dermatologists are aware of this unusual complication of HZ and can avoid unwarranted investigations and surgical intervention.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Website: https://journals.lww.com/idoj	Quick Response Code
DOI: 10.4103/idoj.idoj_523_23	

How to cite this article: Sukhija R, Sethy M, Srinivas CR, Jain K. Abdominal pseudo hernia: A rare complication of herpes zoster. Indian Dermatol Online J 2024;15:681-2.

Received: 07-Jul-2023. **Revised:** 31-Oct-2023.
Accepted: 12-Nov-2023. **Published:** 20-May-2024.